

**WHAT IS CLAIMED IS:**

1. A stream converting method, characterized in that it comprises the steps of:

separating a first transport stream (TS) into a first TS  
5 packet string formed from TS packets that have a prescribed  
packet identifier and a second TS packet string formed from  
TS packets that do not have the prescribed packet identifier;

converting a bit rate of the first TS packet string so  
as to produce a third TS packet string; and

10 multiplexing the produced third TS packet string and the  
second TS packet string so as to produce a second transport  
stream.

2. The stream converting method according to claim 1,  
15 characterized in that the prescribed packet identifier is a  
packet identifier of at least one of video data and audio  
data.

3. The stream converting method according to claim 1,  
20 characterized in that it comprises the steps of:

extracting reference time information from the first  
transport stream so as to produce reference time from the  
reference time information;

determining, with reference to the reference time, time  
25 of receipt of a TS packet including a head byte of a PES

packet in the first TS packet string as first time of receipt;

determining, with reference to the reference time, time of receipt of a head byte of each TS packet forming the  
5 second TS packet string as second time of receipt; and

delaying the reference time by a prescribed time so as to produce delayed reference time, and in that the packet multiplexing step includes the steps of

selecting from the third TS packet string a TS packet  
10 corresponding to the first time of receipt for output as the second transport stream, when the delayed reference time matches the first time of receipt, and

selecting from the second TS packet string a TS packet  
15 corresponding to the second time of receipt for output as the second transport stream, when the delayed reference time matches the second time of receipt.

4. A stream recording method, characterized in that it comprises the steps of:

20 separating a first transport stream into a first TS packet string formed from TS packets that have a prescribed packet identifier and a second TS packet string formed from TS packets that do not have the prescribed packet identifier;

converting a bit rate of the first TS packet string so  
25 as to produce a third TS packet string;

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multiplexing the produced third TS packet string and the second TS packet string so as to produce a second transport stream;

5 extracting reference time information from the first transport stream, and delaying reference time represented by the reference time information by a prescribed time so as to produce delayed reference time; and

10 determining, with reference to the delayed reference time, time of receipt of each TS packet forming the second transport stream, and recording the second transport stream together with the determined time of receipt onto a recording medium.

15 5. A stream recording method, characterized in that it comprises the steps of:

selecting TS packets other than TS packets having a prescribed packet identifier from a first transport stream so as to output the selected TS packets as a second transport stream;

20 extracting reference time information from the first transport stream so as to produce reference time from the reference time information; and

25 determining, with reference to the reference time, time of receipt of each TS packet forming the second transport stream, and recording the second transport stream together

with the determined time of receipt onto a recording medium.

6. The stream recording method according to claim 4 or 5,  
characterized in that the prescribed packet identifier is a  
5 packet identifier of at least one of video data and audio  
data.

7. The stream recording method according to claim 4 or 5,  
characterized in that the recording medium is an optical disk.

8. A stream converting apparatus, characterized in that  
it comprises:

a packet separating section for separating a first  
transport stream into a first TS packet string formed from TS  
15 packets that have a prescribed packet identifier and a second  
TS packet string formed from TS packets that do not have the  
prescribed packet identifier;

a bit-rate converting section for converting a bit rate  
of the first TS packet string so as to produce a third TS  
20 packet string; and

a packet multiplexing section for multiplexing the third  
TS packet string output from the bit-rate converting section  
and the second TS packet string output from the packet  
separating section so as to produce a second transport stream.

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9. A stream recording apparatus, characterized in that it comprises:

5 a packet separating section for separating a first transport stream into a first TS packet string formed from TS packets that have a prescribed packet identifier and a second TS packet string formed from TS packets that do not have the prescribed packet identifier;

10 a bit-rate converting section for converting a bit rate of the first TS packet string so as to produce a third TS packet string;

15 a packet multiplexing section for multiplexing the third TS packet string output from the bit-rate converting section and the second TS packet string output from the packet separating section so as to produce a second transport stream;

a means for extracting reference time information from the first transport stream, and delaying reference time represented by the reference time information by a prescribed time so as to produce delayed reference time; and

20 a recording control section for determining, with reference to the delayed reference time, time of receipt of each TS packet forming the second transport stream, and recording the second transport stream together with the determined time of receipt onto a recording medium.

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10. A stream recording apparatus, characterized in that it comprises:

a packet selecting section for selecting TS packets other than TS packets having a prescribed packet identifier from a first transport stream so as to output the selected TS packets as a second transport stream;

a means for extracting reference time information from the first transport stream so as to produce reference time from the reference time information; and

a recording control section for determining, with reference to the reference time, time of receipt of each TS packet forming the second transport stream, and recording the second transport stream together with the determined time of receipt onto a recording medium.

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